

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Brian H. Harrison et al.
Serial No.: 10/666,976
Filed: September 18, 2003
Title: RUBBER REDUCTION
Docket No.: 36115

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. § 1.98, applicant is submitting herewith Form PTO-1449 listing references for consideration by the Examiner. Legible copies of the twenty-five non-U.S. references listed are also enclosed. Copies of the seventy-five U.S. references listed are not enclosed because they are not required.

If any fees are required by this communication, please charge such fees to our Deposit Account No. 16-0820, Order No. 36115.

Respectfully submitted,

PEARNE & GORDON LLP

By John P. Murtaugh
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Date: 1-16-04

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

John P. Murtaugh

Name of Attorney for Applicant(s)

1-16-04 John P. Murtaugh

Date

Signature of Attorney



Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 36115	SERIAL NO. 10/666,976
INFORMATION DISCLOSURE CITATION BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY) (page 1 of 7)		APPLICANT: Brian H. Harrison et al.	
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U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date If Appropriate
	A	19,172	1/1858	Hall			
	B	22,217	11/1858	Hall			
	C	23,740	4/1859	Baschnagel			
	D	23,805	8/1859	Baschnagel			
	E	25,160	8/1859	Hall			
	F	29,717	8/1860	Richards			
	G	226,070	3/1880	Heyer			
	H	419,697	1/1890	Mitchell			
	I	420,820	2/1890	Mitchell			
	J	425,896	4/1890	Mitchell			
	K	1,169,437	1/1916	Staunton			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	L	44 47 357 A1	6/1996	DE			
	M	0 775 738 A1	5/1997	EP			

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

1	N	"Pyrolysis", Rubber Manufacturers Association, May 2002, <i>one page</i> .
9	P	"Science and Technology of Reclaimed Rubber", D.S. Le Beau, Rubber Chemistry and Technology, 40, (1967), p. 217-237.
	Q	"Pyrolysis Process for Scrap Tires", Shigeo Kawakami et al., ACS Symposium Series 130, (1980), p. 557-572.

Examiner:

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*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date If Appropriate
	A	1,335,926	4/1920	Twiss			
	B	1,963,943	6/1934	Gross			
	C	2,079,489	5/1937	Cole			
	D	2,154,894	4/1939	Essex			
	E	2,276,248	3/1942	Kirby			
	F	2,287,095	6/1942	Federman			
	G	2,313,146	3/1943	Hirschberger			
	H	2,317,491	4/1943	Solakian			
	I	2,391,714	12/1945	Kirby, et al.			
	J	2,794,006	5/1957	Naudain			
	K	3,272,761	9/1961	Glenn, et al.			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	L	1 101 812 A1	5/2001	EP			
	M	95/20007	7/1995	WO			English abstract

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

N	"Characterization of pyrolytic light naphtha from vacuum pyrolysis of used tyres Comparison with petroleum naphtha", B. Benallal et al., Fuel, 74, No. 11, (1995), p. 1589-1594.
P	"Composition of oils derived from the batch pyrolysis of tyres", Adrian M. Cunliffe et al., Journal of Analytical and Applied Pyrolysis, 44, (1998), p. 131-152.
Q	"The pyrolysis of automotive tyre waste", P T Williams et al., Journal of the Institute of Energy, 68, (1995), p.11-21.

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U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date If Appropriate
	A	4,051,080	09/1977	Boccoli			
	B	4,052,344	10/1977	Crane, et al.			
	C	4,104,205	8/1978	Novotny			
	D	4,133,446	1/1979	Albert			
	E	4,148,763	4/1979	Bryson			
	F	4,164,265	8/1979	Kucharczyk			
	G	4,264,481	4/1981	Markvik			
	H	4,341,619	7/1982	Poska			
	I	4,384,150	5/1983	Lyakhevi, et al.			
	J	4,384,151	5/1983	Audibert, et al.			
	K	4,388,171	6/1983	Beggs, et al.			

FOREIGN PATENT DOCUMENTS

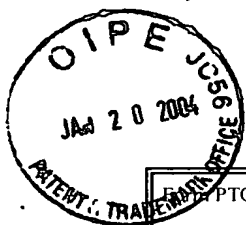
		Document No.	Date	Country	Class	Subclass	Translation
	L	0 702 076 B 1	3/1999	EP			
	M	2 459 822	1/1981	FR			No

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

N	"Pyrolysis of automobile shredder residue: an analysis of the products of a commercial screw kiln process", M. Day et al., Journal of Analytical and Applied Pyrolysis, 37, (1996), p. 49-67.
P	"Pyrolysis of automobile tyre waste. Influence of operating variables and kinetics study", Juan F. Gonzalez et al., Journal of Analytical and Applied Pyrolysis, 58-59, (2001), p. 667-683.
Q	"Subcritical and Supercritical Extraction of Oil from Used Automotive Tire Samples", Toshitaka Funazukuri et al., Journal of Chemical Engineering of Japan, 18, No. 5, (1985), p. 455-460.

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Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date If Appropriate
	A	4,395,501	7/1983	Briggs, et al.			
	B	4,446,012	5/1984	Murthy, et al.			
	C	4,465,888	8/1984	Paspek, Jr.			
	D	4,483,761	11/1984	Paspek, Jr.			
	E	4,544,675	10/1985	Anderson, Jr.			
	F	4,642,401	2/1987	Coenen, et al.			
	G	4,657,681	4/1987	Hughes, et al.			
	H	5,070,109	12/1991	Ulick, et al.			
	I	5,106,513	4/1992	Hong			
	J	5,236,352	8/1993	Carpenter			
	K	5,386,055	1/1995	Lee, et al.			

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		Document No.	Date	Country	Class	Subclass	Translation
	L	96/38496	12/1996	WO			English abstract
	M	0 694 600 B 1	4/1999	EP			

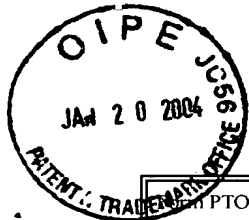
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	N	"Supercritical Extraction of Used Automotive Tire With Water", Toshitaka Funazukuri et al., Journal of Chemical Engineering of Japan, 20, No. 1, (1987), p. 23-27.
	P	"Statistical study of the liquefaction of used rubber tyre in supercritical water", Sangdo Park et al., Fuel, 76, No. 11, (1997), p. 999-1003.
	Q	"Supercritical fluid extraction of scrap tyres", John R. Kershaw, Fuel, 77, No. 9/10, (1998), p. 1113-1115.

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U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date If Appropriate
	A	5,400,642	3/1995	Salvador Palacios, et al.			
	B	5,418,256	5/1995	Dhawan, et al.			
	C	5,437,696	8/1995	Verkade, et al.			
	D	5,502,262	3/1996	Yamasaki, et al.			
	E	5,516,952	5/1996	Lee, et al.			
	F	5,639,934	6/1997	Yamasaki, et al.			
	G	5,728,361	3/1998	Holley			
	H	5,731,483	3/1998	Stabel, et al.			
	I	5,771,821	6/1998	Zhuravsky, et al.			
	J	5,780,518	7/1998	Mulyarchik, et al.			
	K	5,843,386	12/1998	Makino, et al.			

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		Document No.	Date	Country	Class	Subclass	Translation
	L	2,025,044	12/1999	Canada			English abstract and claims
	M	2,307,973	12/2000	Canada			English abstract and claims

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

N	"Depolymerization Reactions of cis-Polyisoprene and Scrap Rubber in Supercritical Toluene", Jagdish C. Dhawan et al., American Chemical Society Symposium, 514, (1993), p. 380-394.
P	"Reaction Products of Styrene-Butadiene ABA Block Copolymer in Supercritical Toluene and Tetralin", Jagdish C. Dhawan et al., The Journal of Supercritical Fluids, 4, (1991), p. 160-165.
Q	"Extraction with supercritical fluids: Why, how, and so what", Gale G. Hoyer, Chemtech, (1985), p. 440-448.

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U.S. PATENT DOCUMENTS

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	A	5,852,062	12/1998	Carpenter			
	B	5,891,926	4/1999	Hunt, et al.			
	C	5,905,095	5/1999	Adkins			
	D	6,001,144	12/1999	Takeuchi, et al.			
	E	6,066,263	5/2000	Makino, et al.			
	F	6,107,532	8/2000	Saito, et al.			
	G	6,180,845 B1	1/2001	Catallo, et al.			
	H	6,335,377 B1	1/2002	Izumoto, et al.			
	I	6,352,674 B2	3/2002	Matsubara, et al.			
	J	6,380,269 B1	4/2002	Benko, et al.			
	K	6,387,965 B1	5/2002	Benko, et al.			

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		Document No.	Date	Country	Class	Subclass	Translation
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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

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U.S. PATENT DOCUMENTS							
Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date If Appropriate
	A	6,462,099 B1	10/2002	Benko, et al.			
	B	6,462,230 B1	10/2002	Nagase, et al.			
	C	6,504,068 B1	1/2003	Matsubara, et al.			
	D	6,548,560 B1	4/2003	Kovalak, et al.			
	E	6,576,680 B2	6/2003	Ohshima, et al.			
	F	T965,002	10/1977	Crane, et al.			
	G	3,563,922	2/1971	Massoubre			
	H	3,787,166	1/1974	Schaub, et al.			
	I	2001/0007049A1	7/2001	Takasaki, et al.			
	J						
	K						

FOREIGN PATENT DOCUMENTS							
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